



DEPARTMENT OF TRANSPORTATION

Federal Transit Administration

FY 2022 Competitive Funding Opportunity: Advanced Driver Assistance Systems (ADAS) for Transit Buses Demonstration and Automated Transit Bus Maintenance and Yard Operations Demonstration

AGENCY: Federal Transit Administration (FTA), Department of Transportation (DOT).

ACTION: Notice of Funding Opportunity (NOFO).

SUMMARY: The Federal Transit Administration (FTA) announces the opportunity to apply for funding for transit bus automation demonstration projects under the Public Transportation Innovation Program. FTA is exploring the use of driving automation technologies in bus transit operations as described in the Strategic Transit Automation Research (STAR) Plan. As part of this research agenda, FTA is funding a number of demonstrations in real-world settings. These projects will create a testbed for study of technical issues, user acceptance, operational and maintenance costs, workforce training and transition, and institutional issues, and will further assess the needs for standards development.

DATES: Complete applications must be submitted electronically through the GRANTS.GOV “APPLY” function by 11:59 PM Eastern time on **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

FOR FURTHER INFORMATION CONTACT: Steve Mortensen, Senior ITS Engineer, 202-493-0459, or transitautomation@dot.gov.

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A. Program Description

This Notice (Federal Assistance Listing: 20.530) seeks to fund demonstrations in two areas under the Public Transportation Innovation Program (49 U.S.C. 5312): (1) Advanced Driver Assistance Systems (ADAS) for Transit Buses and (2) Automated Transit Bus Maintenance and Yard Operations – identified as demonstrations #1 and #3 respectively in the STAR Plan (available at <https://www.transit.dot.gov/research-innovation/strategic-transit-automation-research-plan>). These demonstrations address one of the primary goals of the STAR Plan, which is to demonstrate transit bus automation technologies in real-world settings. The demonstrations will help establish the feasibility of ADAS and Automated Transit Bus Maintenance and Yard Operations use cases and improve understanding of the impacts. A total of up to \$6.5 million is available for demonstration projects:

1. \$5 million for ADAS for Transit Buses; and
2. \$1.5 million for an initial phase of Automated Transit Bus Maintenance and Yard Operations and, subject to availability, additional funding may be provided to implement a second phase of the Automated Transit Bus Maintenance and Yard Operations Demonstration.

1. Program Overview

Automation capabilities have grown rapidly in recent years and have changed the dialogue around all aspects of the surface transportation system. Transit bus automation could deliver

many potential benefits, but transit agencies need additional research and practical information to make informed deployment decisions. To support the development and deployment of automated bus transit services and to advance transit readiness for automation and help move the transit industry forward, FTA developed the STAR Plan to outline FTA's research agenda on transit bus automation technologies. FTA's efforts aim to help determine the potential benefits and costs of transit bus automation, and to provide transit agencies with the resources, guidance, and tools they need to make informed deployment decisions. See FTA's Transit Automation Research website for more information (<https://www.transit.dot.gov/automation-research>).

The demonstrations align with the Department's Innovation Principles and Strategic Goals: Safety, Economic Strength and Global Competitiveness, Equity, Climate and Sustainability, Transformation, and Organizational Excellence. ADAS has the potential to increase safety, provide a more accessible service, and/or improve driving and operational performance in terms of fuel economy, network efficiency, or other metrics. Automated maintenance and yard operations have the potential to increase efficiency in transit agency facilities and improve safety of operations within the yard for the transit agency workforce.

ADAS can assist bus operators, reduce collisions, and increase safety, including safety for vulnerable road users, and has the potential to provide a more accessible service (e.g., precision docking) and improve driving and operational performance in terms of fuel economy and network efficiency (e.g., smooth acceleration and deceleration, platooning, narrow lane/shoulder operations). Automated maintenance and yard operations can increase efficiency in transit agency maintenance and yard facilities (e.g., precision movement of fueling, service bays, and bus washing; automated parking and recall) and improve safety of operations within these facilities for the transit agency workforce (e.g., bus disinfection, injury reduction).

2. Research Scope

Advanced Driver Assistance Systems (ADAS) for Transit Buses Demonstration: FTA is seeking innovative projects to demonstrate market-ready or near market-ready ADAS

technologies for use in revenue service to assess technology readiness and effectiveness, address technical issues, identify benefits and costs, and measure impacts. Demonstrations should be conducted with technologies and vehicles that are currently on the market and can be adapted or retrofitted to the purpose relatively quickly. Use cases may include smooth acceleration and deceleration; automatic emergency braking and pedestrian collision avoidance; curb avoidance; precision docking; narrow lane/shoulder operations; and platooning. Eligible activities include applicable systems engineering activities leading to the demonstration of ADAS use cases, such as requirements, architecture, and design development; equipment installation and integration; and pre-demonstration testing. Workforce engagement, training, and skills development activities related to the demonstration are also eligible. Projects will consist of a minimum 12-month operational demonstration in revenue service. Eligible projects must propose to demonstrate at least one ADAS use case.

Automation for Maintenance and Yard Operations Demonstration: FTA is seeking innovative projects to execute the first phase and, if funding becomes available, the second phase of Automation for Maintenance and Yard Operations demonstrations. Demonstrations should be conducted with vehicles that are broadly representative of those currently comprising the agency's fleet in terms of size and passenger capacity. Use cases may include precision movement for fueling/recharging, maintenance, disinfection, and/or bus wash; and automated parking and recall. Eligible activities include applicable systems engineering activities leading to the proof-of-concept demonstration, such as requirements, architecture, and design development; equipment installation and integration; and testing. Workforce engagement, training, and skills development activities related to the demonstration are also eligible.

Phase 1 will result in one or more concepts of operations and limited proof of concept demonstrations, which must be conducted within 12 months of project award. Phase 2 is envisioned to result in a longer-term (12-24 month) operational demonstration on a transit property and additional functionality (for example, expanding the number of equipped vehicles,

locations within the yard, or expanded automation of functions). Applicants should identify the proposed location and duration of the Phase 1 proof-of-concept test, noting that an active bus yard is preferred, but offsite facilities and test tracks will be considered. Phase 2, if funded, should be located in an active bus yard. The Automation for Maintenance and Yard Operations Demonstration will assist the transit industry in assessing technology readiness and effectiveness, addressing technical issues, identifying benefits and costs, and measuring impacts of automated operations in transit agency bus yards and maintenance facilities.

Details of the demonstrations will vary according to the applicants and projects selected, but all proposed projects should address a broad range of factors related to transit, such as:

- System performance, capabilities, limitations, and effectiveness
- Transit operations and maintenance
- Service quality
- Safety and security, including cybersecurity
- Human factors, including operator training and human-machine interface
- Transit agency staff experience and acceptance
- Passenger experience, comfort, acceptance, and willingness to use, including passengers with disabilities
- Perceptions and acceptance by other road users, such as bicyclists and pedestrians
- Communication and equipment needs and costs
- Overall cost-effectiveness
- Transferability
- Accessibility
- Input from labor

Applicants are encouraged to elaborate on these factors and to identify and discuss any additional factors as appropriate in their application under this NOFO.

The awardees of both demonstrations will be required to produce a report for publication at

the end of the project, documenting the project approach, results, lessons learned, conclusions and potential next steps, and include training materials produced by the project. The awardees of both demonstrations will also be required to work with an FTA-selected independent evaluator to evaluate the respective projects.

3. Alignment with Policy Priorities

These demonstrations are closely aligned with US DOT's Strategic Goals and Innovation Principles. Examples include the following:

- **Improve Safety** – ADAS technologies can include lane-keeping, automatic emergency braking, pedestrian avoidance systems, and other collision avoidance capabilities; and automated maintenance and yard operations could reduce the number of conflicts between vehicles and maintenance staff, pedestrians, fixed objects, or other vehicles. Both demonstrations will help show the possible safety implications of these technologies.
- **Serve Equity** – ADAS includes precision docking technologies, which can make boarding and alighting easier and faster for all passengers, but particularly those with mobility challenges. Additionally, other ADAS technologies can help increase throughput, resulting in faster trips and improved reliability—generally, improvements in transit service have positive implications for equity outcomes.
- **Reduce Climate Impacts** – Certain automated vehicle technologies may have the potential to improve efficiency in ways that reduce overall fuel consumption, which accordingly result in a reduction in emissions. These demonstrations can provide valuable data to help quantify the possible fuel savings and emission reduction.
- **Promote American Competitiveness and Economic Development** – The transit industry benefits from Federal investment in new technologies, supporting domestic manufacturing as well as economic development through improvements to safety and mobility.

- Support Workers and Workforce – Safety improvements from ADAS could enhance operator safety. Automation of maintenance and yard operations can streamline the start and end of operator shifts, increasing safety and reducing the workload on operators. The participation of labor representatives in project design and implementation will enhance project learning with respect to safety and workforce impacts.

B. Federal Award Information

Federal public transportation law (49 U.S.C. 5312) authorizes FTA's Public Transportation Innovation Program. Through this program, FTA may support research, development, demonstration, and deployment projects, and evaluation of research and technology of national significance to public transportation that the Secretary determines will improve public transportation service. FTA anticipates competitively selecting up to three projects for each demonstration for a total of up to \$6.5 million of FTA Public Transportation Innovation Program demonstration funds.

An applicant whose proposal is selected for funding will receive a cooperative agreement with FTA. FTA will have substantial involvement in the administration of the cooperative agreement. FTA's role includes the right to participate in decisions to redirect and reprioritize project activities, goals, and deliverables.

FTA may, at its discretion, provide additional funds for selections made under this announcement or for additional meritorious applications. FTA may cap the amount a single recipient or State may receive as part of the selection process. Due to funding limitations, applicants that are selected for funding may receive less than the amount requested. Only applications from eligible recipients for eligible activities will be considered for funding.

Projects under this competition are for demonstration projects, including documentation and evaluation efforts and, as such, FTA Circular 6100.1E, "Research, Technical Assistance and Training Program Guidance" (available at <https://www.fta.dot.gov/regulations-and-guidance/fta->

[circulars/research-technical-assistance-and-training-program](#)), guidance will apply in

administering the program.

C. Eligibility Information

1. Eligible Applicants

Eligible applicants under this Notice include the following:

- Public transit agencies;
- State/local government entities;
- Metropolitan planning organizations (MPOs);
- Federally recognized Indian tribes; and
- Institutions of higher education, particularly those with Minority Serving Institution status.

Applications must clearly identify the eligible applicant and all project partners on the project team. Eligible project partners under this program may include, but are not limited to:

- Bus manufacturers;
- Technology system suppliers, developers, and integrators;
- Operators of transportation services, such as employee shuttle services, airport connector services, university transportation systems, or parking and tolling authorities;
- State or local government entities;
- Labor unions and other workforce representatives; and
- Other organizations, including consultants, research consortia, and not-for-profit industry organizations.

In the application, eligible applicants are encouraged to identify one or more project partners with a substantial interest and involvement in the project activities or objectives to participate in the implementation of the project.

If an application that involves such a partnership is selected for funding, the competitive selection process will be deemed to satisfy the requirement for a competitive procurement under 49 U.S.C. 5325(a) for the named entities. Applicants are advised that any changes from the proposed partnership after selection will require FTA's written approval, must be consistent with the scope of the approved project, and may require competitive procurement unless an exception applies.

To be considered eligible, applicants must be able to demonstrate the requisite legal, financial, and technical capabilities to receive and administer Federal funds under this program.

2. Cost Sharing or Matching

The maximum Federal share of project costs under this program is limited to 80 percent. Applicants may seek a lower Federal contribution. The applicant must provide the non-Federal share of the net project cost in cash, or in-kind, and must document in its application the source of the non-Federal match. Eligible sources of non-Federal match are detailed in FTA Circular 6100.1E.

3. Eligible Projects

Eligible activities for the ADAS for Transit Buses Demonstration include applicable systems engineering activities leading to the demonstration of ADAS use cases, such as requirements, architecture, and design development; equipment installation and integration; and pre-demonstration testing. Workforce engagement, training, and skills development activities related to the demonstration are also eligible. Projects will consist of a minimum 12-month operational demonstration in revenue service. Eligible projects must propose to demonstrate at least one ADAS use case.

Eligible activities for the Automation for Maintenance and Yard Operations Demonstration include applicable systems engineering activities leading to the proof-of-concept demonstration, such as requirements, architecture, and design development; equipment installation and

integration; and testing. Workforce engagement, training, and skills development activities related to the demonstration are also eligible.

Projects will not include the demonstration, deployment, or evaluation of a vehicle that is in revenue service unless the project makes significant technological advancements in the vehicle.

D. Application and Submission Information

1. Address to Request Application

Applications must be submitted electronically through GRANTS.GOV. General information for submitting applications through GRANTS.GOV can be found at <http://www.transit.dot.gov/howtoapply> along with specific instructions for the forms and attachments required for submission. A complete proposal submission consists of two forms and an attachment. Forms are a standard form 424 (SF-424), “Application for Federal Assistance,” which can be downloaded from GRANTS.GOV and the supplemental form for the FY22 Advanced Driver Assistance Systems (ADAS) for Transit Buses Demonstration and Automated Transit Bus Maintenance and Yard Operations Demonstration, which can be downloaded from the FTA website at <https://www.transit.dot.gov/notices-funding/fiscal-year-2022-advanced-driver-assistance-systems-adas-transit-buses>. The funding opportunity ID is FTA-2022-015-TRI-STAR. The attachment shall provide the project approach and proposed scope of work.

2. Content and Form of Application Submission

A completed application consists of the SF-424, the supplemental form, and the project approach and proposed scope of work attachment. The application must include responses to all sections of the SF-424 Application for Federal Assistance and the supplemental form, unless indicated as optional. The supplemental form and required project approach and proposed scope of work attachment must be added to the “Attachments” section of the SF-424. The project approach and proposed scope of work attachment, limited to 15 pages, should be a short project proposal that describes the following:

- Project background;

- Technical information including proposed impact and outcomes;
- Project approach including major tasks and milestones/deliverables, overall workflow and timeline, roles and responsibilities, anticipated project risks and mitigation strategies, knowledge transfer activities, and proposed costs/budget; and the
- Team organizational capacity and staff experience.

FTA will accept only one supplemental form and project approach and proposed scope of work attachment per SF-424 submission. Applicants may also attach additional supporting information and other materials or information relevant to the demonstration such as letters of support from key stakeholders, which are not subject to the 15-page limit of the project approach and proposed scope of work attachment.

Any supporting documentation must be described and referenced by file name in the appropriate response section of the supplemental form, or it may not be reviewed. The information on the supplemental form will be used to determine applicant and project eligibility for the program.

Information such as applicant name, Federal amount requested, and local match amount may be requested on both the SF-424 and supplemental form. Applicants must fill in all fields unless stated otherwise on the forms. If information is copied into the supplemental form from another source, applicants should verify that pasted text is fully captured on the supplemental form and has not been truncated by the character limits built into the form. Applicants should use both the “Check Package for Errors” and the “Validate Form” validation buttons on both forms to check all required fields on the forms and ensure that the Federal and local amounts specified are consistent.

The SF-424 Application for Federal Assistance and the supplemental form will prompt applicants for the required information, including:

1. Applicant name.
2. Unique Entity Identifier (UEI) number.

3. Key contact information (including name, address, email address, and phone).
4. Congressional district(s) where project will take place.
5. Project information (including title, and an executive summary).
6. A description of the project and how it will (a) design, test, and evaluate the relevant technologies and their practical application; and (b) document results and share lessons learned in a format suitable for publication.
7. Information on any project partners, their role, and anticipated contributions.
8. A description of the technical, legal, and financial capacity of the applicant and partners.
9. A detailed project budget, specifying Federal and local share when applicable.
10. A detailed project timeline.

Refer to Section E.1 for information on the application review criteria.

3. *Unique Entity Identifier and System for Award Management (SAM)*

Each applicant is required to: (1) be registered in SAM before submitting an application; (2) provide a valid unique entity identifier in its application; and (3) continue to maintain an active SAM registration with current information at all times during which the applicant has an active Federal award or an application or plan under consideration by FTA. FTA may not make an award until the applicant has complied with all applicable unique entity identifier and SAM requirements. If an applicant has not fully complied with the requirements by the time FTA is ready to make an award, FTA may determine that the applicant is not qualified to receive an award and use that determination as a basis for making a Federal award to another applicant. These requirements do not apply if the applicant has an exception approved by FTA or the U.S. Office of Management and Budget under 2 CFR 25.110(c) or (d). SAM registration takes approximately 3-5 business days, but FTA recommends allowing ample time, up to several

weeks, for completion of all steps. For additional information on obtaining a unique entity identifier, please visit <https://www.sam.gov/>.

4. *Submission Dates and Times*

Project applications must be submitted electronically through GRANTS.GOV by 11:59 PM Eastern time on **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**. GRANTS.GOV attaches a time stamp to each application at the time of submission. Applications submitted after the deadline will only be considered if lateness was due to extraordinary circumstances not under the applicant's control. Mail and fax submissions will not be accepted.

FTA urges applicants to submit applications at least 72 hours prior to the due date to allow time to receive the validation messages and to correct any problems that may have caused a rejection notification. GRANTS.GOV scheduled maintenance and outage times are announced on the GRANTS.GOV website. Deadlines will not be extended due to scheduled website maintenance.

Within 48 hours after submitting an electronic application, the applicant should receive an email message from GRANTS.GOV with confirmation of successful transmission to GRANTS.GOV. If a notice of failed validation or incomplete materials is received, the applicant must address the reason for the failed validation, as described in the email notice, and resubmit before the submission deadline. If making a resubmission for any reason, include all original attachments regardless of which attachments were updated and check the box on the supplemental form indicating this is a resubmission.

Applicants are encouraged to begin the process of registration on the GRANTS.GOV site well in advance of the submission deadline. Registration is a multi-step process, which may take several weeks to complete before an application can be submitted. Registered applicants may still be required to take steps to keep their registration up to date before submissions can be made successfully: (1) registration in SAM is renewed annually, and (2) persons making submissions

on behalf of the Authorized Organization Representative (AOR) must be authorized in GRANTS.GOV by the AOR to make submission.

5. *Funding Restrictions*

Refer to Section C.3., Eligible Projects, for information on activities that are allowable. Allowable direct and indirect expenses must be consistent with the Governmentwide Uniform Administrative Requirements and Cost Principles (2 CFR part 200) and FTA Circular 5010.1E.

Funds available under this NOFO cannot be used to reimburse applicants for otherwise eligible expenses incurred prior to FTA issuing pre-award authority for selected projects.

6. *Other Submission Requirements*

Applicants are encouraged to identify scaled funding options in case funding is not available to fund a project at the full requested amount. If an applicant indicates that a project is scalable, the applicant must provide an appropriate minimum funding amount that will fund an eligible project that achieves the objectives of the program and meets all relevant program requirements. The applicant must provide a clear explanation of how the project budget would be affected by a reduced award. FTA may award a lesser amount regardless of whether a scalable option is provided.

All applications must be submitted via the GRANTS.GOV website. FTA does not accept applications on paper, by fax machine, email, or other means. For information on application submission requirements, please see Section D.1., Address to Request Application.

E. Application Review Information

1. *Criteria*

Projects will be evaluated on the project approach and proposed scope of work attachment and responses provided in the supplemental form. Additional information may be provided to support the responses; however, any additional documentation must be directly referenced on the supplemental form, including the file name where the additional information can be found. FTA will evaluate applications based on the criteria described below.

a. Project Impact and Outcomes

FTA seeks projects that increase the transit community's knowledge about the feasibility, effectiveness, benefits, and costs of driving automation technologies for transit buses. Strong applications will present a clear plan for how these factors will be identified and measured. Under this criterion, FTA will prioritize projects that demonstrate a clear understanding and presentation of the technology to be demonstrated, its maturity today, the expected maturity at the conclusion of the project, and potential impacts on the workforce as a result of technology implementation. Projects that address transit applications that are generalizable across agencies and geographies and that are scalable to wider and expanded use will be given priority for funding. This includes an emphasis on commonly available commercial products rather than custom-built solutions, wherever possible, as well as consideration of the project's applicability to other locations and types of transit buses and service models.

b. Project Approach

Applications should present a realistic and detailed description of the overall project workflow and the content of each task or step mentioned in the workflow, including any major dependencies and milestones/deliverables. Applicants should clearly describe how they plan to engage the workforce, develop and administer needed training, and assess the effectiveness of that training. They should clearly delineate project roles and responsibilities and present information on potential project risks and how the risks will be mitigated. Applicants should include a proposed list of milestones and/or deliverables and timelines and describe how these deliverables will be shared with peers and the public. At a minimum, the final report will be published and posted on the FTA website, but applicants are encouraged to identify potential conferences, journals, etc. which may be appropriate. The project budget should be supported by documentation that allows FTA to assess the source and credibility of the estimates. The source of local matching funds should be clearly identified and any potential restrictions or limitations of those funds should be discussed. FTA may consider projects that will provide more than the

minimum 20 percent local match more favorably, as this allows FTA to leverage its limited funding to support a greater number of projects.

c. Organizational Capacity and Staff Experience

The applicant should discuss successful completion of similar or relevant projects. Additionally, the application should note the staff who will be involved in the project, their qualifications, and how the applicant will ensure they will have enough time to devote to the project.

d. Technical, Legal, and Financial Capacity

Applicant must demonstrate the financial and organizational capacity and managerial experience to successfully oversee and implement this project. FTA may review relevant oversight assessments and records to determine whether there are any outstanding legal, technical, or financial issues with the applicant that would affect the outcome of the proposed project. Applicants with outstanding legal, technical, or financial compliance issues from an FTA compliance review or Federal Transit Administration grant-related Single Audit finding must explain how corrective actions will mitigate negative impacts on the proposed project.

For applications that include named project partners, FTA will also consider the technical, legal, and financial capacity of the proposed partners.

2. Review and Selection Process

A technical evaluation committee will evaluate applications based on the evaluation criteria. Members of the technical evaluation committee may request additional information from applicants, if necessary. Based on the review of the technical evaluation committee, the FTA Administrator will determine the final selection for program funding.

After applying the evaluation criteria, in support of the President's January 20, 2021, Executive Order 13900 on Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis, the selecting official will consider applications that may provide other air quality benefits as part of the application review. Applicants should identify any

nonattainment or maintenance areas under the Clean Air Act in the proposed service area. Nonattainment or maintenance areas should be limited to the following applicable National Ambient Air Quality Standards criteria pollutants: carbon monoxide, ozone, and particulate matter 2.5 and 10. The U.S. Environmental Protection Agency's Green Book (available at <https://www.epa.gov/green-book>) is a publicly available resource for nonattainment and maintenance area data. This consideration will further the goals of the Executive Order, including the goal to prioritize environment justice (EJ), and historically disadvantaged communities.

In support of Executive Order 14008, Tackling the Climate Crisis at Home and Abroad, FTA will give priority consideration to applications that create significant community benefits relating to the environment, including those projects that address greenhouse gas emissions and climate change impacts. FTA encourages applicants to demonstrate whether they have considered climate change and environmental justice in terms of the transportation planning process or anticipated design components with outcomes that address climate change (*e.g.*, resilience or adaptation measures). The application should describe what specific climate change or environmental justice activities have been incorporated, including whether a project supports a Climate Action Plan, whether an equitable development plan has been prepared, and whether tools such as EPA's EJSCREEN have been applied in project planning. The application should also describe specific and direct ways the project will mitigate or reduce climate change impacts including any components that reduce emissions, promote energy efficiency, incorporate electrification or low emission or zero emission vehicle infrastructure, increase resiliency, or recycle or redevelop existing infrastructure.

In addition, FTA will consider benefits to EJ communities when reviewing applications received under this program. Applicants should identify any EJ populations located within the proposed service area and describe anticipated benefits to that population(s) should the applicant receive a grant under this program. A formal EJ analysis that is typically included in

transportation planning or environmental reviews is not requested. Among the factors, in determining the allocation of program funds FTA may consider geographic diversity, diversity in the size of the grantees receiving funding, or the applicant's receipt of other competitive awards. Respectively, FTA will evaluate the proposals to determine the extent that the proposed project will address affordable housing needs, provide equitable housing choices for environmental justice populations, and avoid displacement of low-income households.

In support of Executive Order 14008, and consistent with OMB's Interim Guidance for the Justice40 Initiative, Historically Disadvantaged Communities include (a) certain qualifying census tracts, (b) any Tribal land, or (c) any territory or possession of the United States. DOT is providing a mapping tool to assist applicants in identifying whether a project is located in a Historically Disadvantaged Community:

(<https://usdot.maps.arcgis.com/apps/dashboards/d6f90dfcc8b44525b04c7ce748a3674a>). Use of this map tool is optional; applicants may provide an image of the map tool outputs, or alternatively, consistent with OMB's Interim Guidance, applicants can supply quantitative, demographic data of their ridership demonstrating the percentage of their ridership that meets the criteria described in Executive Order 14008 for disadvantage. Examples of Disadvantaged Communities that an applicant could address using geographic or demographic information include low income, high and/or persistent poverty, high unemployment and underemployment, racial and ethnic residential segregation, linguistic isolation, or high housing cost burden and substandard housing. Additionally, in support of the Justice40 Initiative, the applicant also should provide evidence of strategies that the applicant has used in the planning process to seek out and consider the needs of those traditionally disadvantaged and underserved by existing transportation systems. For technical assistance using the mapping tool, please contact GMO@dot.gov.

3. *Integrity and Performance Review*

Prior to making an award, FTA is required to review and consider any information about the applicant that is in the Federal Awardee Performance and Integrity Information System (FAPIIS), accessible through SAM. An applicant may review and comment on any information about itself that a Federal awarding agency previously entered. FTA will consider any comments by the applicant, in addition to the other information in the designated integrity and performance system, in making a judgment about the applicant's and proposed partners' integrity, business ethics, and record of performance under Federal awards when completing the review of risk posed by applicants as described in the Office of Management and Budget's Uniform Requirements for Federal Awards (2 CFR 200.206).

F. Federal Award Administration Information

1. *Federal Award Notices*

FTA will announce the final project selections on the FTA website. Due to funding limitations, applicants that are selected for funding may receive less than the amount originally requested. In those cases, applicants must be able to demonstrate that the proposed projects are still viable and can be completed with the amount awarded.

2. *Administrative and National Policy Requirements*

a. *Pre-Award Authority*

At the time the project selections are announced, FTA may extend pre-award authority for the selected projects. There is no blanket pre-award authority for these projects before announcement. FTA will issue specific guidance to recipients regarding pre-award authority at the time of selection. FTA does not provide pre-award authority for competitive funds until projects are selected, and even then, there are Federal requirements that must be met before costs are incurred. For more information about FTA's policy on pre-award authority, please see the most recent Apportionments, Allocations and Program Information Notice at

<https://www.transit.dot.gov/regulations/federal-register-documents/2022-09143>.

Pre-award authority is subject to FTA approval and is only available for costs incurred after the announcement of project selections on FTA's website. A request for pre-award authority must be submitted to FTA and approved in writing in advance of any costs being incurred.

b. Cooperative Agreement Requirements

If selected, awardees will apply for a cooperative agreement through TrAMS and adhere to the customary FTA grant requirements of 49 U.S.C. 5312, Public Transportation Innovation, including those of FTA Circular 6100.1E. Successful applicants must be prepared to submit a complete statement of work and application in TrAMS within 45 days of notification of award, and should include any goals, targets, and indicators in the TrAMS application Executive Summary. Technical assistance regarding these requirements will be available from the appointed FTA project manager who will be identified upon project selection.

c. Safety Requirements

Applicants must comply with applicable safety requirements, including those administered by the National Highway Traffic Safety Administration (NHTSA) and Federal Motor Carrier Safety Administration (FMCSA). Specifically, the proposed project must comply with applicable Federal Motor Vehicle Safety Standards (FMVSS) and Federal Motor Carrier Safety Regulations (FMCSR). If the vehicles do not comply, the application should either (1) show that the vehicles and their proposed operations are within the scope of an exemption or waiver that has already been granted by NHTSA, FMCSA, or both agencies, or (2) directly address whether the project will require exemptions or waivers from the FMVSS, FMCSR, or any other regulation and, if the project will require exemptions or waivers, present a plan for obtaining them.

d. Made in America

All capital procurements must meet FTA's Buy America requirements (49 U.S.C. 5323(j) and 49 CFR part 661) and the Build America, Buy America Act's domestic preference requirements for infrastructure projects (§§ 70901 – 70927 of the Infrastructure Investment and Jobs Act, Pub.

L. 117-58), which together require that all iron, steel, manufactured goods, and construction materials be produced in the United States, and set minimum domestic content and final assembly requirements for rolling stock. The U.S. Department of Transportation issued a temporary public interest waiver for construction materials for a period of 180 days beginning on May 14, 2022 and expiring on November 10, 2022.

Any proposal that will require a waiver of any domestic preference standard must identify the items for which a waiver will be sought in the application. Applicants should not proceed with the expectation that waivers will be granted.

e. Disadvantaged Business Enterprises

Recipients receiving planning, capital, or operating assistance that will award prime contracts exceeding \$250,000 in FTA funds in a Federal fiscal year must comply with the U.S. Department of Transportation's Disadvantaged Business Enterprise (DBE) program regulations (49 CFR part 26). Applicants should expect to include any funds awarded, excluding those to be used for vehicle procurements, in setting their overall DBE goal.

f. Standard Assurances

If an applicant receives an award, the applicant must assure that it will comply with all applicable Federal statutes, regulations, executive orders, directives, FTA circulars, and other Federal administrative requirements in carrying out any project supported by the FTA award. The applicant acknowledges that it will be under a continuing obligation to comply with the terms and conditions of the agreement issued for its project with FTA. The applicant understands that Federal laws, regulations, policies, and administrative practices might be modified from time to time and may affect the implementation of the project. The most recent Federal requirements will apply to the project unless FTA issues a written determination otherwise. The applicant must submit the most recent FTA Certifications and Assurances before receiving an award if it does not have current certifications on file.

g. External Communications

Recipients must communicate with their FTA project manager prior to engaging in any external communications regarding their project. This includes any work developing news or magazine stories with media organizations, including print, video, online, or otherwise. Additionally, the FTA project manager must be notified if project information, including results and metrics, will be shared during a webinar or other presentation open to the public produced either by the recipient itself or another organization. Recipients should consult with their FTA project manager at the beginning of their agreement to discuss and plan any external communications about their project.

h. Data Access and Data Sharing

FTA seeks to improve public transportation for America's communities by sharing digital data or source code collected or developed through its research with the public. This allows research organizations, transit agencies, and other stakeholders to learn from and expand upon the insights developed from FTA-funded research. An award made pursuant to this NOFO will be subject to the latest version of FTA's Master Agreement (available at <https://www.transit.dot.gov/funding/grantee-resources/sample-fta-agreements/fta-grant-agreements>), including Section 17 Patent Rights and Section 18 Rights in Data and Copyrights.

All work conducted under this award must follow the Department data policies outlined in the DOT Public Access Plan at: <https://ntl.bts.gov/public-access/how-comply>, including the development and approval of a Data Management Plan (DMP). Recipients are required to include these obligations in any sub-awards or other related funding agreements.

A DMP is a document that describes how recipients plan to handle digital datasets, software, or code generated over the course of a research project pursuant to Federal and Departmental requirements. A DMP must be provided as a condition of receiving FTA funds under the Section 5312 Research Program and should adequately identify: (1) the data to be collected, (2) how the data will further the goals of this effort, (3) how the data will be made accessible, and (4) how

the data will be stored. DMPs can be updated over time if the scope of the project or the type of data that will be collected changes. FTA staff is available to assist recipients with complying with public data access requirements.

FTA expects recipients to remove confidential business information (CBI) and Personally Identifiable Information (PII) before providing public access to project data. Recipients must ensure the appropriate data are accessible to FTA or the public for a minimum of five years after the award period of performance expires.

Recipients must make available to the Department copies of all work developed in performance of a project funded under this announcement, including but not limited to software and data. Data rights shall be in accordance with [2 CFR 200.315](#), Intangible property.

i. Independent Evaluation

Projects funded under this announcement will be subject to evaluation by an independent evaluator selected by FTA. Recipients will be required to coordinate with the independent evaluator to assist in developing an evaluation plan and collecting, storing and managing data required to fulfill that evaluation plan.

j. Software Provisions

Any standards, guidance, tools or software developed as a part of this solicitation will be subject to provisions of FTA's Master Agreement and evaluated for the potential to be shared for use by public transportation agencies.

3. Reporting

Post-award reporting requirements include the electronic submission of Federal Financial Reports and Milestone Progress Reports in TrAMS. Documentation is required for payment. Additional progress reporting to the FTA project manager may be required. The recipient may be expected to participate in events or peer networks related to the goals and objectives of the program.

The Federal Financial Accountability and Transparency Act (FFATA) requires data entry at the FFATA Sub Award Reporting System (<http://www.FSRS.gov>) for all sub-awards and sub-contracts issued for \$30,000 or more, as well as addressing executive compensation for both award recipients and sub-award organizations.

As part of completing the annual certifications and assurances required of FTA grant recipients, a successful applicant must report on the suspension or debarment status of itself and its principals.

If the award recipient's active grants, cooperative agreements, and procurement contracts from all Federal awarding agencies exceeds \$10,000,000 for any period of time during the period of performance of an award made pursuant to this Notice, the recipient must comply with the Recipient Integrity and Performance Matters reporting requirements described in Appendix XII to 2 CFR part 200.

Note that vehicle demonstration projects are not considered *regular and continuing*, and so data on ridership and vehicle operations for demonstration projects are not reported to the National Transit Database (NTD). The cost of the project may be reportable as a reconciling item by full reporters. Recipients should consult their NTD Validation Analyst on proper reporting of demonstration projects.

G. Federal Awarding Agency Contacts

For further information concerning this notice, please contact Steve Mortensen in the FTA Office of Research, Demonstration and Innovation, by phone at 202-493-0459, or by e-mail at transitautomation@dot.gov. A TDD is available for individuals who are deaf or hard of hearing at 800-877-8339. In addition, FTA will post answers to questions and requests for clarifications on FTA's website at <https://www.transit.dot.gov/grant-programs/advanced-driver-assistance-systems-adas-transit-buses-demonstration-and-automated>. To ensure applicants receive accurate information about eligibility, applicants are encouraged to contact FTA directly, rather than

through intermediaries or third parties, with questions. FTA staff may also conduct briefings on the competitive grants selection and award process upon request.

For issues with GRANTS.GOV, please contact GRANTS.GOV by phone at 1-800-518- 4726 or by e-mail at support@grants.gov.

H. Other Information

This program is not subject to Executive Order 12372, “Intergovernmental Review of Federal Programs.”

Nuria I. Fernandez,

Administrator.

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